

## **52-25 Portable II Dental Delivery Unit (Project 96-74) (10/97)**

The Portable II Dental Delivery Unit by DNTLworks is a self-contained portable dental delivery system designed to provide the capability for general dental procedures. It is indicated for use in environments where normal compressed air and water connections are unavailable or as a backup for fixed dental operatories. The system provides a built-in a horsepower air compressor with 2.5-gallon air storage tank and a separate 3 horsepower vacuum pump for oral evacuation. The unit is supplied with three automatic activation handpiece connections with optional fiberoptic capability. It also features a foot control with wet/dry toggle switch, air/water syringe, drive air and water coolant adjustment knobs, and separate water system with handpiece flush. The waste collection system includes both high- and low-volume evacuation with automatic activation holders. Overflow of the 1.2-liter waste collection canister is prevented by an automatic shut-off device. The Portable II Dental Delivery Unit is constructed of high-grade aluminum, measures 18.5 inches by 38 inches by 16 inches and weighs 138 pounds. The unit can be configured for either 115 or 220 volts.



### **Manufacturer:**

DNTLworks Equipment Corporation  
15504 East Hinsdale Circle, Unit B  
Englewood, CO 80112  
(800) 847-0694  
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**Suggested Retail Price:** \$6,995.00

**Government Price:** \$5,512.00

### **ADVANTAGES:**

- + Excellent portability within clinic or hospital.
- + Provides capability for dental procedures where compressed air, water, and suction are not available.
- + Cart size and configuration allows for excellent access to patients.
- + Unit controls are easy to understand and use.
- + Automatic activation of handpieces and vacuum lines.
- + The unit's noise level (69 dB) is less than specification allowable maximum (75 dB).
- + Automatic overflow protection device in waste collection system.
- + Accessory 110/115-volt receptacles conveniently located on exterior of cart.
- + Automatic waste purge system eliminates the need for manual removal and cleaning of waste canister if sewer connection available.
- + The operation/service manual contains an excellent troubleshooting guide.

### **DISADVANTAGES:**

- Clinical evaluators reported the unit's noise level was objectionable.
- Did not meet minimum specifications for high- or low-volume suction performance.
- Fiberoptic lighting system is not standard.
- Compressor is not oil-less as required by military specification.
- Lacks solids collector in waste collection system.
- No written waterline disinfection protocol.

- Operation/service manual lacks exploded parts diagrams.
- Access to internal parts for adjustment or repair is difficult.
- Waste canister is not unbreakable and semi-opaque as required by military specification.

**SUMMARY AND CONCLUSIONS:**

The Portable II Dental Delivery Unit by DNTLworks failed to meet a number of the specifications of the DIS Portable/Field Unit Checklist based on the Medical Procurement Item Description #2 (MPID #2, Operating and Treatment Unit, Dental Field). However, the unit generally performed the functions for which it was designed. The operation/maintenance manual is easy to understand and the troubleshooting section is excellent. There is a complete parts listing but exploded diagrams are absent. Unit controls were judged to be easy to understand and use and the unit did not impede operator access to the patient. A separate water system was present but did not contain a written protocol for disinfection of the unit waterlines. The waste system has the capability to automatically empty the waste canister if a sewer is available, otherwise manual emptying is required. The unit met military specifications for allowable noise levels but clinical evaluators were split when asked if the noise level was objectionable. The evacuation system failed to meet the requirements for both high- and low-volume suction performance. The compressor is not oil-less as required by military specification and requires periodic maintenance. Access to internal components for repairs was judged by DIS personnel to be difficult. The **Portable II Dental Delivery Unit** is rated **Marginal** for use by the federal dental services.